UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/674,347	10/30/2000	Jacob Cornelis Van Der Wal	PTT-106(4025	6895

			EXAMINER
7265	7590	03/08/2004	NG, CHRISTINE Y

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ART UNIT	PAPER NUMBER
2663	3

DATE MAILED: 03/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	09/674,347	VAN DER WAL ET AL.
	Examiner	Art Unit
	Christine Ng	2663

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _30 October 2000_.

2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _7-13_ is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _7-13_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _30 October 2000_ is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All   b)☐ Some *   c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
   Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

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DETAILED ACTION

Claim Rejections - 35 USC § 112

1.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly
> claiming the subject matter which the applicant regards as his invention.

2.   Claims 7-13 are rejected under 35 U.S.C. 112, second paragraph, as being

indefinite for failing to particularly point out and distinctly claim the subject matter which

applicant regards as the invention.

Regarding claim 7 line 2, the phrase "such as" renders the claim indefinite

because it is unclear whether the limitations following the phrase are part of the claimed

invention. See MPEP § 2173.05(d).

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

4.   Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S.

Patent No. 5,623,405 to Isono in view of U.S. Patent No. 5,912,880 to Bernstein.

Isono discloses in Figures 4 and 6 a system for charging, in a packet based

telecommunication network (ATM), the packet load per connection (VCI), characterized

by a measuring device (Figure 6, Element 25c) for measuring a set number of received

packets belonging to the same connection (VCI). As shown in Figure 2, Isono discloses

that an accounting data generation circuit (Element 150) "generates accounting data

each time a predetermined number of cells related to the same VCI value is received"

(Column 4, lines 32-35). Accounting data is "obtained by multiplying the predetermined

number of cells by the related accounting coefficient" (Column 4, lines 35-37). The

accounting coefficient is used to assign weights to various connections carrying different

information types (speech, data or image) when calculating a charge for the connection.

Refer to Column 2, lines 19-29 and Column 5, lines 16-23. A counter (Figure 6,

Element 25c) counts up to the predetermined number n of cells and then outputs a

signal each time the number n of cells is received. Refer to Column 6, lines 50-65.

Isono does not disclose that the measuring device also measures the time period

between the set number of received packets.

Bernstein discloses in Figure 4 a "means for measuring the internal receiver time

elapsed during the receipt of the predetermined number of cells" (Column 2, lines 13-

15). A VCO (Element 440) and a DAC (Element 445) form a NCO (Figure 2, Element

210) which drives an interarrival time counter (Element 455) to measure interarrival

times, or the "time between n successive cells from a CBR message". Refer to Column

3, lines 1-5 and lines 25-60. The interarrival time can be used to adjust the internal

timing of the receiver since cell interarrival time is directly related to transmission

frequency and can allow faster timing acquisition. Refer to Column 4, lines 52-55 and

Abstract. Interarrival time can also be used to determine congestion conditions and the

flow rate from the transmitting side. Therefore, it would have been obvious to one

skilled in the art at the time the invention was made to include that the measuring device

also measures the time period between the set number of received packets; the

motivation being that the measured time can be used to adjust the internal timing of the receiver and to determine traffic conditions from the transmitter.

5.   Claims 8 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,623,405 to Isono in view of U.S. Patent No. 5,912,880 to Bernstein, and in further view of U.S. Patent No. 6,104,704 to Buhler et al.

Referring to claim 8, Isono and Bernstein do not disclose a calculation device for calculating the number of packets per period of time and supplying that calculation result to a billing system.

Buhler et al disclose in Figures 3 and 4 a calculation device (not shown) for calculating the number of packets per period of time (packet density) and supplying that calculation result (packet density) to a billing system (Figure 3, Element 62). Before a call, a caller may choose certain calling conditions, such as a selected "packet density or the packets per unit time" (Column 6, lines 10-20). During the call, "billing server 62 receives periodic updated call details, which may include packet routing and density" (Column 5, lines 59-61). Once the call is complete, a call billing record based on the calling conditions chosen by the caller is stored in the call detail records database (Figure 4, Element 70). Refer to Column 5, line 67 to Column 6, line 4. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include a calculation device for calculating the number of packets per period of time and supplying that calculation result to a billing system; the motivation being that a user may request a specific packet density for a call, such as a high packet density if the caller wishes for faster transmission. Specific packet densities need to be billed

accordingly and at a special rate, depending on the chosen density. Refer to Column 1, lines 24-29.

Referring to claim 11, Isono and Bernstein do not disclose an aggregation device for aggregating the calculation result and passing on the aggregated result to the billing system.

Buhler et al disclose in Figures 3 and 4 an aggregation device (recording and billing logic; Figure 4, Element 64) for aggregating the calculation result (packet density) and passing on the aggregated result to the billing system (Element 62). The recording and billing logic (Figure 4, Element 64) processes the call detail information that includes periodic updated call details such as packet density. Refer to Column 5, line 48 to Column 6, line 4. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include an aggregation device for aggregating the calculation result and passing on the aggregated result to the billing system; the motivation being that if the packet density is periodically updated, the aggregation device can provide the most recent density or the average density to the billing system to ensure a consistent charge on the connection.

6.   Claims 9, 10, 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,623,405 to Isono in view of U.S. Patent No. 5,912,880 to Bernstein in view of U.S. Patent No. 6,104,704 to Buhler et al, and in further view of U.S. Patent No. 6,338,046 to Saari et al.

Referring to claims 9 and 10, Isono, Bernstein and Buhler et al do not disclose

system packets which comprise an indication of the capacity or priority requested by the

user (claim 9) or assigned by the telecommunication system (claim 10), characterized

by a detection device for reading out the indication out of the system packets and

transferring that indication to the billing system.

Saari et al disclose in Figure 2 system packets (billing cell, Element 31) which

comprise an indication (connection information, Element 38) of the capacity or priority

requested by the user or assigned by the telecommunication system, characterized by a

detection device (Element 24) for reading out the indication (connection information,

Element 38) out of the system packets (billing cell, Element 31) and transferring that

indication to the billing system (access network billing system; Figure 3, Element 40).

The connection information (Element 38) includes a connection type field (Element 31)

that specifies service parameters such as maximum peak rate, acceptable cell loss

ratio, the service class used (CBR, VBR, UBR or ABR) or other ATM traffic parameters.

Refer to Column 5, line 60 to Column 6, line 2. A node (Element 24) receives the billing

cell (Element 31), detects the connection information (Element 38) and then copies the

connection information (Element 38) from the billing cell (Element 31) to the billing unit

(Element 34). The billing unit (Element 34) then transfers the charging information to a

common billing system (Figure 3, Element 40). Refer to Column 5, lines 16-27 and

Column 6, lines 26-28. The connection information (Element 38) in billing cell (Element

31) describes the general level of service expected (assigned by the telecommunication

system, claim 10) or required (requested by the user, claim 9) by a network user when

using a particular connection. Refer to Column 5, lines 56-60. Therefore, it would have

been obvious to one of ordinary skill in the art at the time the invention was made to

include system packets which comprise an indication of the capacity or priority

requested by the user (claim 9) or assigned by the telecommunication system (claim

10), characterized by a detection device for reading out the indication out of the system

packets and transferring that indication to the billing system; the motivation being that

this allows the user or the telecommunication system to assign certain traffic

parameters to the connection, depending on the type of traffic being transmitted, and for

different traffic parameters to be charged differently.

Referring to claims 12 and 13, Isono, Bernstein and Buhler et al do not disclose

an aggregation device for aggregating the capacity or priority indications and passing on

the aggregated indications to the billing system.

Saari et al disclose in Figure 3 an aggregation device (billing unit, Elements 34a-

34d) along a path of nodes (Elements 24a-24d) from a source (Element 26a) to a

destination (Element 26b) for aggregating the capacity or priority indications (connection

information; Figure 2, Element 38) and passing on the aggregated indications to the

billing system (Element 40). A first billing unit (Element 34a) generates charging

information using the billing cell information it received at a first node (Element 24a) and

a charging strategy. The first billing unit (Element 34a) then passes the updated billing

cell to a second billing unit (Element 34b) which then generates charging information

based on the billing cell contents and a different charging strategy. This is repeated for

billing units 34c and 34d. "After acquiring the relevant billing information from each of

the billing units 34a-34d associated with each of the nodes 24a-24d defining the

connections between the users 26a and 26b, the network billing system 40 computes

the total cost for transmitting the data between source and destination locations 26a,

26b" (Column 7, lines 19-26). Refer to Column 6, line 49 to Column 7, line 26.

Therefore, it would have been obvious to one skilled in the art at the time the invention

was made to include an aggregation device for aggregating the capacity or priority

indications and passing on the aggregated indications to the billing system; the

motivation being that this allows for charging a connection that spans over a series of

nodes that operate under different charging strategies. Charging information can be

accumulated from one node to the next node to allow for accurate billing of the full

connection.

Conclusion

7.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Christine Ng whose telephone number is (703) 305-

8395. The examiner can normally be reached on M-F; 8:00 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Nguyen Chau can be reached on (703) 308-5340. The fax phone number

for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

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For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

C. Ng Ꞇᴎ
February 26, 2004

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